APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,759	08/31/2001	Junko Ami	213504US2RD	9942

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EXAMINER
WIN, AUNG T

ART UNIT	PAPER NUMBER
2645	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 August 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Drawings

1.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they do not include the following reference sign(s) mentioned in the

description: Transmission device Y mentioned in Paragraph 35 does not include in

Figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The replacement

sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR

1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not

accepted by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not be held

in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 5, 6, 11, 19, 21 are rejected under 35 U.S.C. 102 (b) as being

anticipated by Callaway U.S. Patent 6,275,500 B1.

2.   Regarding Claims 1 and 21, Callaway discloses a broadcast type service system

using communications according to Bluetooth specification, the system comprising:

at least one transmission device (at least one of a plurality of communication devices

acting as slaves capable of communication with the master and capable of

communication with at least another one of the plurality of communication devices); a

reception information providing device (a transceiver operating as master); and a

plurality of reception devices (a plurality of communication devices acting as slaves)

[Column 5, Line 10-17]

each transmission device (a first slave of the plurality of communication devices)

having: a transmission device communication unit (Transceiver 50) [Figure 15]

configured to carry out communications with the reception information providing device

(Master communication device) and the reception devices (a plurality of communication

devices acting as slaves) (configured to transmit a communication request to the master

communication device to carry out communication with the reception devices) and a

transmission device control unit (Processor 58) [Figure 15] configured to control the

transmission device communication unit to transmit application data (data packets) to at

least one reception device (a second slave of the plurality of communication devices)

and to transmit (transmit to request) a reception establishing information of each

transmission device (communication resource parameter such as frequency,

modulation, protocol, data rate, etc.) [Column 3, Line 50-52 and Line 63-67] which is

necessary for a reception device to receive the application data transmitted from each

transmission device [Figure 13] [Column 5, Line 9-39] [Column 7, Line 19-46];

the reception information providing device (Master communication device) having: a

reception information providing device communication unit (Transceiver acting as

master) configured to carry out communications with each transmission device (a first

slave of the plurality of communication devices) and the reception devices (the plurality

of slaves communication devices); and a reception information providing device control

unit (Processor 58) configured to control the reception information providing device

communication unit to receive the reception establishing information (communication

resource parameter such as frequency, modulation, protocol, data rate, etc.) of each

transmission device transmitted from each transmission device (to receive

acknowledgement of the reception establishing information from a first slave of the

plurality of communication devices), and to transmit the reception establishing

information of a specified transmission device to a prescribed reception device (to

transmit the reception establishing information assigned to a first slave of the plurality of

communication devices to a second slave of the plurality of communication devices)

[Column 3, Line 26-30] [Figure 13] [Column 5, Line 9-39] [Column 7, Line 19-46]; and

each reception device having (a second slave of the plurality of communication

devices): a reception device communication unit (Transceiver) configured to carry out

communications with each transmission device and the reception information providing

device; and a reception device control unit (processor) configured to control the

reception device communication unit to receive the reception establishing information of

one transmission device (a first slave of the plurality of communication devices)

transmitted from the reception information providing device (master communication

device), and to receive the application data (data packet) transmitted from said one

transmission device according to the reception establishing information of said one

transmission device (according to the reception establishing information assigned to a

first slave of the plurality of communication devices) [Figure 13] [Column 5, Line 9-39]

[Column 7, Line 19-46].

3.   Regarding Claim 19, which is a method claim corresponding to Claim 1 is

rejected for the same reasons as stated above because the claimed steps read on the

corresponding means on Claim 1.

4.   Regarding Claim 4, Callaway discloses all the limitations in Claim 1 and further

discloses the acknowledgement step initiated by master communication device

necessary for the two communication devices agreement to the parameters assigned by

the master communication devices [Column 3, Line 56-67]. Therefore, it is inherent for

the reception information providing device to compare service specification comparison

between two communication devices and to control the communications at an

acceptable communication level between two communication devices.

5.   Regarding Claim 5, Callaway further discloses that the transmission device

control unit of each transmission device is also configured to control the transmission

device communication unit to transmit the application data (data packets) even when

there is no reception device (second slave of plurality of communication devices) that is

carrying out communications with each transmission device (a first slave of plurality of

communication devices) in an active mode according to the Bluetooth specification (a

first slave of plurality of communication devices communicates a second slave of

plurality of communication devices in parked mode) [Column 3, Line 30-32].

6.   Regarding Claim 6, Callaway further discloses that the reception device control

unit is also configured to control the reception device communication unit to receive the

application data (data packets) transmitted from said one transmission device (a first

slave of plurality of communication devices) according to the reception establishing

information of said one transmission device (according to the assigned resource

parameters of a first slave of plurality of communication devices such as frequency,

modulation, protocol, data rate, etc), only when communications in an active mode

according to the Bluetooth specification cannot be carried out with said one

transmission device (transmission device carry out transmission only in parked mode)

[Column 3, Line 30-32].

7.   Regarding Claim 11, Callaway discloses that the reception information providing

device communication unit (master communication device) receives the request of the

reception establishing information of each transmission device by carrying out

communications according to the Bluetooth specification (Standard Bluetooth 1.0) with

each transmission device [Column 3, Line 42-45].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 3, 7-10, 12, 17, 18 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Callaway in view of Haartsen.

8.   Regarding Claims 2 and 3, Callaway discloses all the limitation in the Claim 1.

Callaway further discloses the programmable processor integrated in Bluetooth

Tranceiver 50 [Figure 15]. Therefore it is inherent in the reception information providing

device to have either a memory unit to store the reception establishing information

received by the reception device communication unit for the processor to process in

accordance with the reception establishing information or to have a plurality of memory

units configured to separately store the reception establishing information of a plurality

of transmission devices (transmission devices from different piconets) by the reception

device communication unit.

9.   Regarding Claims 7, 8, 17 and 18, Callaway discloses that the reception

establishing information that indicates (communication resource parameter such as

frequency, modulation, protocol, data rate, etc.) as describes in Claim 1. Although

Callaway teaches that all devices in the same Piconet are synchronized to the same

hopping sequence (hopping pattern) and each piconet is identified by a different frequency hopping sequence [Column 1, Line 55-60], Callaway does not clearly disclose the reception establishing information indicates the phase and clock of transmission device and Bluetooth device.

Haartsen clearly discloses the ad-hoc wireless network in which master and slave units establish communication by the address (Bluetooth address) of master unit, which determines the hopping sequence and the system clock in the master transceiver unit which determines the phase in the hopping sequence [Column 11, Line 31-47]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made that reception establishing information received by the reception device indicates a hopping pattern, Bluetooth device address, a phase and clock of transmission device as taught by Haarten to establish communication between transmission and reception device.

10.   Regarding Claim 9, Callaway discloses that the reception establishing information that indicates (communication resource parameter such as frequency, modulation, protocol, data rate, etc.) as describes in Claim 1. Although Callaway teaches that all devices in the same Piconet are synchronized to the same hopping sequence (hopping pattern) and each piconet is identified by a different frequency hopping sequence [Column 1, Line 55-60]. Callaway does not clearly disclose the reception information providing device communication unit transmits the reception

establishing information of the specified transmission device that indicates a Bluetooth device address of the specified transmission device, a clock offset between the specified transmission device and the reception information providing device, and a clock of the reception information providing device at a time of transmitting the reception establishing information to the prescribed reception device.

Haartsen discloses master communication means and slave communication means [Figure 12] [Column 20, Line 63-67] [Column 21, Line 1-18] to generate the hop frequencies at appreciate times (synchronized to the same hopping sequence) based on the master address and determination of the clock difference (clock offset) between the master clock and slave clock after connection has been established (link establish procedure known to one skilled in the in ad-hoc wireless network art in which master determine the slave Bluetooth device address). Haartsen further discloses bridge unit C participating in different piconets 603 and 605 acting as a bridge between the source unit A in the piconet 603 and destination unit B in piconet 605 [Figure 6b] [Column 14, Line 21-53]. Haartesen clearly teaches that bridge unit comprises two transceiver units, each establish connection with unit A and unit B separately and information is transferred back and forth between two transceiver with bridge unit C by inquiry process which determine the unit addresses of both piconet 603 and piconet 605, and control information. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify reception providing device in Callaway as taught by Haartsen so that the reception information providing device communication unit transmits the reception establishing information of the specified transmission device

that indicates a Bluetooth device address of the specified transmission device, a clock

offset (time difference) between the specified transmission device and the reception

information providing device, and a clock of the reception information providing device

at a time of transmitting the reception establishing information to the prescribed

reception device to establish connection between the transmission and reception device

in different piconets.

11.   Claim 10 is rejected for the same reason described above in Claim 9 since clock

offset is the function of a clock of the specified transmission device at a time of

transmitting the reception establishing information from the specified transmission

device to the reception information providing device and a clock of the reception

information providing device at a time of receiving the reception establishing information

from the specified transmission device.

12.   Regarding Claim 12, Callaway discloses all the limitations in the Claim 1 but

does not disclose the reception information providing device communication unit carry

out communication with each transmission device by communications different from the

Bluetooth specification.

      Haartsen discloses the ad-hoc wireless network in which master and slave units

establish communication by means of a virtual frequency hopping channel whose

hopping sequence is a function of the master address, and whose phase is a function of

the master clock [Abstract]. Therefore, it would have been obvious to one of ordinary

skill in the art at the time of the invention was made to modify Callaway as taught by

Haartsen to carry out data communication different from communications according to

the Bluetooth specification with each transmission device to operate in different existing

data network to provide mechanisms for efficient distribution of data packets.

Claims 13-16, 20, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Callaway .

13.   Regarding Claim 13 and 22, Callaway discloses a broadcast type service system

(Bluetooth communication system) [Figure 2] using communications according to

Bluetooth specification, the system comprising:

at least one transmission device (at least one of a plurality of communication devices

acting as slaves capable of communication with the master or master communication

device); and a plurality of reception devices (a plurality of communication devices acting

as slaves or master communication device) [Figure 14];

each transmission device (at least one of a plurality of communication devices acting as

slaves capable of communication with the master) having: a transmission device

communication unit (Transceiver 50) [Figure 15] configured to carry out communications

with the reception devices (configured to set up communications with a plurality of

communication devices acting as slaves); and a transmission device control unit

(processor 58) [Figure 15] configured to control the transmission device communication

unit to transmit application data (data packets) to at least one reception device, and to

transmit a reception establishing information of each transmission device (a set of

communication resource parameters) which is necessary for a reception device to

receive the application data transmitted from each transmission device; and

each reception device (master communication device) having: a reception device

communication unit (Transceiver 50) [Figure 15] configured to carry out communications

with each transmission device (one of a plurality of communication devices acting as

slaves capable of communication with the master); and a reception device control unit

(processor 58) [Figure 15] configured to control the reception device communication unit

to receive the reception establishing information of one transmission device (a set of

communication resource parameters) transmitted from said one transmission device

(slave capable of communication with the master) by carrying out communications in an

active mode (carry out communication on a first communication resource operating in

unparked mode) according to the Bluetooth specification with said one transmission

device, and to receive the application data transmitted from said one transmission

device according to the reception establishing information of said one transmission

device when communications with said one transmission device is switched from the

active mode to a park mode according to the Bluetooth specification [Column 6, Line

40-47]

Callaway does not disclose transmission device is switched from the active mode to a

park mode for the reception device to receive application data transmitted from

transmission device however Callaway disclose that communication devices are

arranged to receive application data in both active mode and park mode [Column 3,

Line 16-22]. Callaway further teaches the use of programmable processor to operate in

accordance with the invention in which communication is established between devices

in active mode and to receive application data in both active mode and park mode

[Column 2, Line 65-67] [Column 7, Line 8-10]. Therefore it would have been obvious to

one of ordinary skill in the art at the time of the invention was made to program the

processor as taught by Callaway to switch the transmission device from the active mode

to park mode for the reception device to receive application data transmitted from the

transmission device to control an indefinite number of communicating slaves within

network [Column 3, Line 17-18].

14.   Regarding Claim 20, which is a method claim corresponding to Claim 13 is

rejected for the same reasons as stated above because the claimed steps read on the

corresponding means on Claim 13.

15.   Regarding Claim 14, Callaway discloses the step wherein the transmission

device control unit of each transmission device is also configured to send an inquiry to

one reception device that is carrying out communications in the active mode with each

transmission device (a request for communication), the inquiry inquiring whether said

one reception device is a device capable of switching to communications in the park

mode or not (whether capable of communication in park mode on the second

communication resource), receive a response to the inquiry from said one reception

device, store information on the response, (acknowledgement whether reception device

is capable of communicating on the second communication resource) and switch

communications with said one reception device from the active mode to the park mode

according to stored information on the response (switching one reception device from

the active mode to the park mode for communication on the second communication

resource) [Column 3, Line 56-67].

16.   Regarding Claim 15, Callaway discloses the system of claim 13, wherein the

transmission device control unit of each transmission device is also configured to

control the transmission device communication unit to transmit the application data even

when there is no reception device that is carrying out communications with each

transmission device in an active mode according to the Bluetooth specification

(communication devices are carrying out communications in parked mode).

17.   Regarding Claim 16, Callaway discloses the system of claim 13, wherein the ,

reception device control unit is also configured to control the reception device

communication unit to receive the application data transmitted from said one

transmission device according to the reception establishing information of said one

transmission device (according to the assigned resource parameters of a first slave of

plurality of communication devices such as frequency, modulation, protocol, data rate,

etc), only when communications in an active mode according to the Bluetooth

specification cannot be carried out with said one transmission device (transmission device carry out transmission only in parked mode) [Column 3, Line 30-32].

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Haartsen et al.	Patent No.:	U.S. 6,570,857 B1
Haartsen	Patent No.:	U.S. 6,754,250 B2
Van Valkenburg et al.	Patent No.:	U.S. 6,775,258 B1
Larsson et al.	Patent No.:	U.S. 6,751,200 B1
Ohlenbusch et al.	Pub. No.:	U.S. 2002/0091785 A1
Fritz et al.	Pub. No.:	U.S. 2002/0051184 A1

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung T Win whose telephone number is (703) 605-4306. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Aung T. Win
Group Art Unit 2645
December 9, 2004
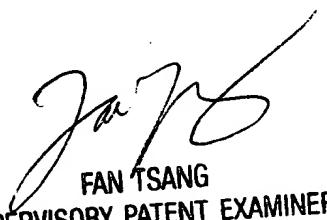
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